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|  | **1** | **2** | **3** | **4** | **5** |
| **Problem Statement** | You copied most of the original problem and did not make a good effort to rewrite it in your own words.  You don’t really show a deep understanding of the problem. | This is an unsatisfactory restatement of the problem, and you copy a lot of the original problem.  Somebody would have lots of trouble understanding the problem.  You show a very limited understanding of the problem. | This is a satisfactory restatement of the problem, and not all of it is in your own words. You leave out a lot of relevant information. Someone else might have trouble understanding the problem. It isn’t clear whether you understand the problem. | This is a solid restatement of the problem in your own words.  Some relevant information about the problem is missing, but somebody else can still understand.  You give a clear, correct interpretation of the problem. | This is an excellent, clear restatement of the problem in your own words.  You explain the problem in a way that someone not familiar with it can actually understand what you are doing.  You give a clear, correct interpretation of the problem. |
| **Process** | Overall, it is too difficult to understand what you did to solve the problem. You just say what you did but don’t try to explain why. You do not attach any of the work you did on the problem. (***OR*** your math is just completely incorrect.) | It is ***sometimes*** possible to understand your explanations/thinking/reasoning. You give very incomplete explanations. You only show 1 or 2 things that you did, but not everything. You attach little to no scrap work. | Your explanations are generally understandable, but your thinking and reasoning are not always clear. It is sometimes difficult to understand your tables, drawings, etc. You attach some of your scrap work. | You have a complete description of everything you did, but maybe you were not as clear in talking about your thinking and reasoning, didn’t show every attempt you made (or explain them deep enough), and/or didn’t attach some of your work. | Overall, you are very complete. Your thinking and reasoning about the problem is clear, organized, and creative. You show and explain everything you did to solve the problem and show all tables, drawings, etc., that you made. You give an excellent description of things you did that did and did not work and why. You attach all of the notes / scrap work. |
| **Solution** | Your just state an incorrect solution with no attempt at explaining it.  ***OR*** your solution is correct but you do not defend it/explain it—you just write it. | You state a correct solution, but there are too many errors in your reasoning and/or explanation, or your explanation is incomplete. ***OR*** you state an incorrect solution with an incomplete explanation. | You state a correct solution, but there are errors in your reasoning. Someone who did not do the problem would be confused. ***OR*** you state an incorrect solution but defend it with some details. | You explain why your solution is correct/complete, but it may not be convincing to someone else. ***OR*** you have a complete/convincing solution, but the reasoning is lacking. ***OR*** your solution is wrong but you defend it with good reasoning. | Your solution is clearly stated. You explain how you know that your solution is correct AND complete. You write your explanation in a convincing way. Someone else who did not do the problem would be able to understand why the solution is correct. |
| **Plan of Attack** | Your plan of attack is neither clear nor detailed. The reader will not understand your approach(es) to the POW. You don’t fully or clearly state what you wondered about the problem or what stuck out. | Missing 3 components for a 5. | Missing 2 components for a 5. | Missing 1 component for a 5. | You present an excellent, clear, thorough outline of all of your approaches to the POW AND make it clear to the reader what you will be discussing throughout your write-up. The reader can clearly follow your thought/reasoning process from start to finish. You state everything you wondered about the problem and everything that stuck out. |
| **Self-assessment** | You didn’t follow the directions and write something unrelated to the self-assessment. (Missing most components for a 3.) | You don’t give a deep enough description of your experience working on the POW. (Missing 1-2 components for a 3.) | You give an excellent, thorough description of what you learned from the POW and what you learned about yourself by doing the POW. You discuss how you worked on this problem and describe what you would you do differently on the next POW. You grade yourself and give a reasonable explanation why. | ---- | ---- |
| **Mechanics** | Too many errors in grammar/spelling. Write-up is very unclear/hard to understand. | Errors and sentence structure make the write-up slightly difficult to read. | Good grammar. Writes in complete sentences. Good spelling. Easy to read. | ---- | ---- |

**1 2 3 4 5**